

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 1-12 are active in the application subsequent to entry of this amendment.

In response to the requirement for restriction, applicants' elect the subject matter of claims 1-12, hence claims 13-18 have been cancelled as directed to non-elected subject matter.

Responsive to the requirement for election of species, applicants elect the subject matter of claims 1-10. Claims 11 and 12 remain in the application but are indicated as being withdrawn, to be rejoined once generic claim 1 is in condition for allowance.

The specification has been amended responsive to items 8-10 of the Official Action with the exception to the expression "chain branching frequency of 1000/3" appearing at line 33 at page 7. This means "1000/3 per 1000 carbon atoms" and is correct as written.

Claims 1, 4 and 9 have been amended as suggested by the examiner.

Claim 1 is amended and directed to a preferred aspect of the invention which specifies bis(pentamethylcyclopentadienyl) zirconium dichloride, is the second metallocene catalyst. This catalyst is the first one listed in the group of second metallocene catalysts in original claim 4. The significance of this claim amendment is discussed further below.

Claims 1-3 and 5-8 stand rejected as allegedly being anticipated by Yang et al U.S. 5,539,056. This rejection is traversed as the subject matter of these claims as above amended, is in no way disclosed in or suggested by the disclosure of this citation. While Yang describes polymer blends, particularly blends of high molecular weight amorphous polypropylene with low molecular weight isotactic propylene. It is however a requirement of claim 1 of the invention that the catalyst system employed comprises a support material coimpregnated with at least two metallocene olefin polymerization catalysts having different propensities for the incorporation of polymer chain defects.

Yang does not disclose any catalysts in which two metallocenes are coimpregnated into the same support, hence applicants' claims are not anticipated.

While Yang describes the catalyst systems involving two different transition metal compounds, these are invariably added as separate components and not on the same support. Coimpregnation gives rise to more homogeneous polymers and is therefore advantageous. Moreover, it could not be expected from the teaching in Yang that two metallocenes could be impregnated on the same support and so give rise of useful polymer products. The risk would be that metallocenes would damage each other and Yang does not consider such a catalyst system. Withdrawal of this rejection is in order.

Claims 1-10 stand rejected under 35 USC 102(b) as anticipated by or in the alternative, obvious under 35 USC 103(a) over Follestad et al U.S. WO 98/57998 which is applied as prior art as of its international publication date of December 3, 1998.

Claim 1 is amended to specify that the second metallocene catalyst is bis(pentamethylcyclopentadienyl) zirconium dichloride. A preferred aspect of the invention, as defined in amended claim 1 in which the second metallocene is bis(pentamethylcyclopentadienyl) zirconium dichloride.

According to applicants and their colleagues, the use of this catalyst gave surprising low comonomer incorporation. Also the chain defect incorporation in the low molecular weight fraction turns out to be significantly lower than in the high molecular weight fraction when using this catalyst. This ensures the benefits discussed in the background section of the text are realized. Thus, mechanical properties, especially environmental stress cracking resistance are improved.

Accordingly, this published PCT application is neither anticipatory nor suggestive of the subject matter defined by applicants' claims.

FOLLESTAD, A. et al.
Appl. No. 10/048,155
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Reconsideration and favorable action are solicited.

Respectfully submitted,

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